

Claims

1. (Currently Amended) In a computer system, a method of ~~representing~~ converting video data for a video image to a lower-precision representation for lower-precision processing of the video data, the method comprising:

~~representing~~ receiving chroma and luma information for a pixel in the video image in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component, and

converting ~~where the n-bit representation is convertible~~ to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged, and

outputting a result of the converting.

2. (Original) The method of claim 1 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.

3. (Currently Amended) The method of claim 1 ~~further comprising wherein the~~ converting comprises converting the n-bit representation to an (n-m)-bit representation by assigning zero values to the m least-significant bits in the fractional component.

4. (Original) The method of claim 1 wherein the chroma information is sampled at a resolution less than the luma information.

5.-34. (Canceled)

35. (Previously Presented) The method of claim 3 wherein the n-bit representation is a 16-bit representation, and wherein the (n-m)-bit representation is a 10-bit representation.

36. (Previously Presented) The method of claim 3 further comprising processing data in the (n-m)-bit representation using (n-m)-bit hardware.

37. (Previously Presented) The method of claim 36 wherein the (n-m)-bit hardware comprises a 10-bit processor.

38. (Previously Presented) The method of claim 3 wherein the n-bit representation and the (n-m)-bit representation are associated with different FOURCC codes.

39. (Previously Presented) The method of claim 1 wherein one or more alpha values are associated with the video image.

40. (Currently Amended) A computer system comprising:

means for receiving at least one memory containing chroma and luma information for at least one pixel in a video image, the chroma and luma information in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component,

means for converting and where the n-bit representation is convertible to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged; and

means for outputting a result of the converting.

~~one or more processing units operable to process the chroma and luma information for the at least one pixel in the video image.~~

41. (Previously Presented) The computer system of claim 40 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.

42.-43. (Canceled)

44. (Previously Presented) The computer system of claim 40 wherein the n-bit representation and the lower-precision representation are represented by different FOURCC codes.

45. (Canceled)

46. (Currently Amended) The computer system of claim 40 further comprising means for displaying the video image using the lower-precision representation a display.

47. (New) The computer system of claim 40 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.

48. (New) The computer system of claim 40 wherein the chroma information and the luma information are in a YUV color space.

49. (New) The method of claim 1 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.

50. (New) The method of claim 1 wherein the chroma information and the luma information are in a YUV color space.

51. (New) One or more computer-readable media having computer-executable instructions stored thereon for causing a computer to perform a method comprising:
receiving chroma and luma information for a pixel in the video image in an n-bit representation, the n-bit representation comprising a 16-bit fixed-point block of data per channel for the pixel, where the most significant byte in the 16-bit unit of data is an integer component, and where the least significant byte in the 16-bit unit of data is a fractional component,
converting the n-bit representation to a lower-precision representation by assigning zero values to one or more least significant bits in the fractional component while the integer component is unchanged, and
outputting a result of the converting.

52. (New) The computer-readable media of claim 51 wherein the n-bit representation is a 16-bit representation and the lower-precision representation is a 10-bit representation.

53. (New) The computer-readable media of claim 51 wherein the n-bit representation and the lower-precision representation are most-significant-bit justified.